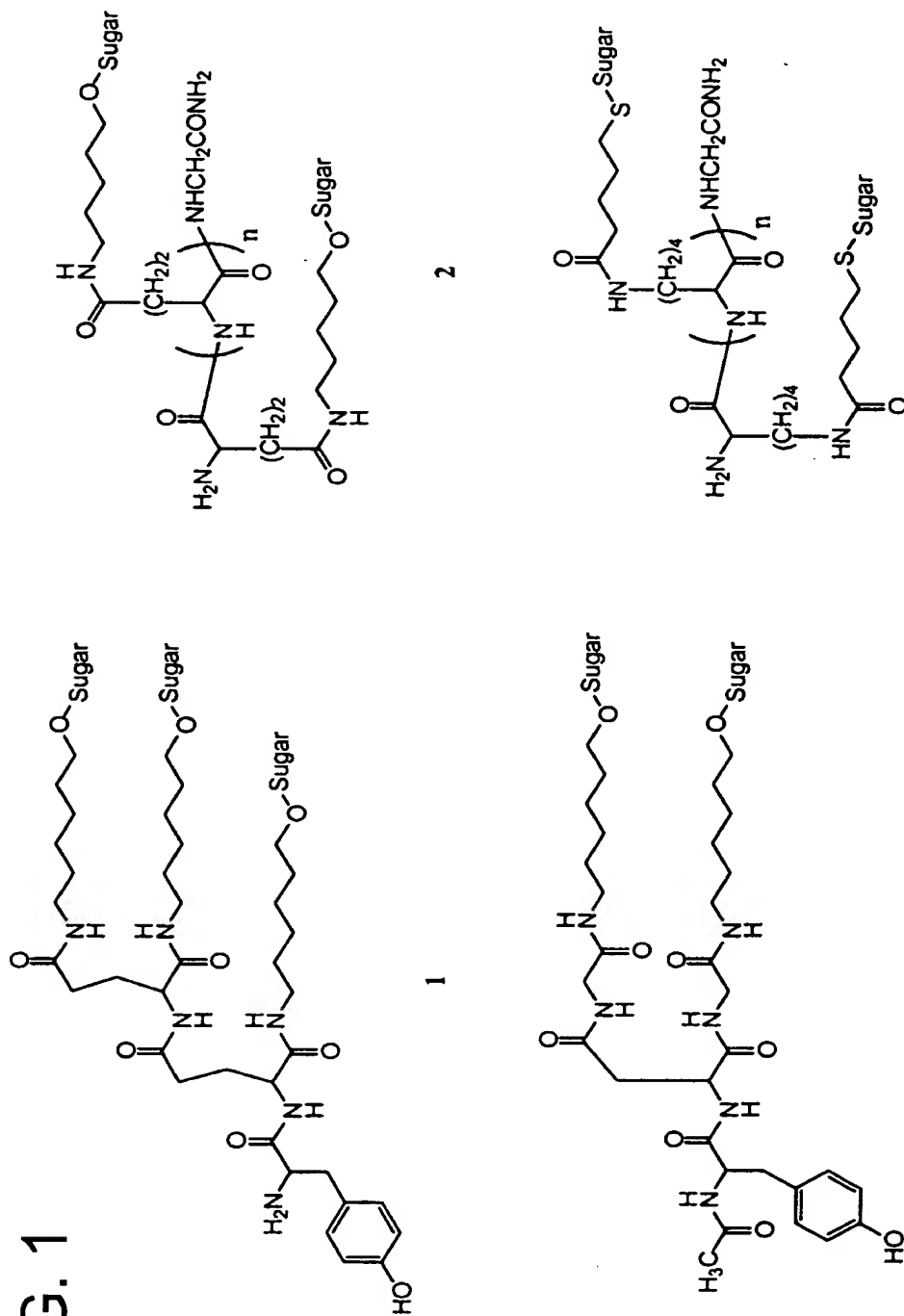


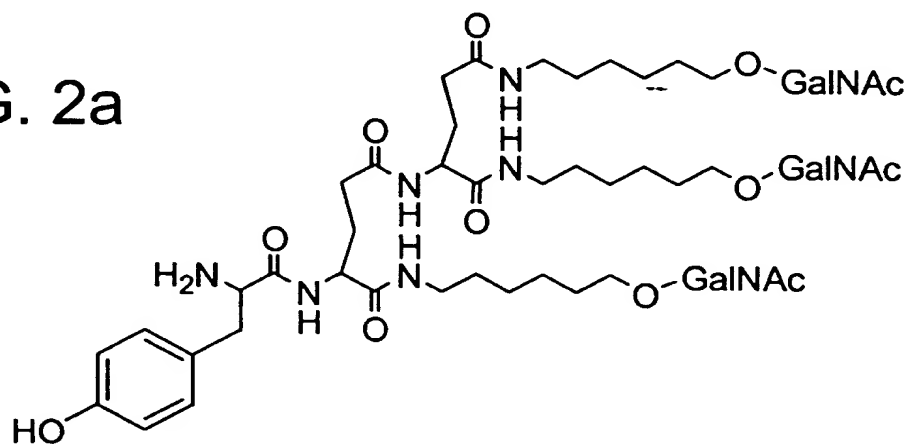
FIG. 1



^a sugar may be, but is not restricted to, any of the following sugars: glucose, N-acetylglucosamine, galactose, N-acetylglucosamine, mannose, fucose.

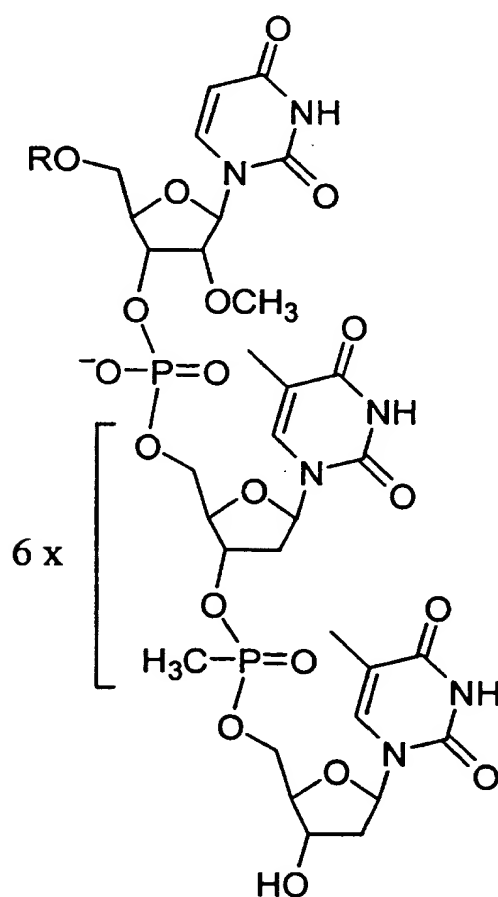
^b Folic acid may be used in place of the sugar residues

FIG. 2a



5

FIG. 2b



6a R = H

6b R = $\text{--P(=O)(O}^-\text{)NHCH}_2\text{CH}_2\text{NH}_3^+$

FIG. 2c

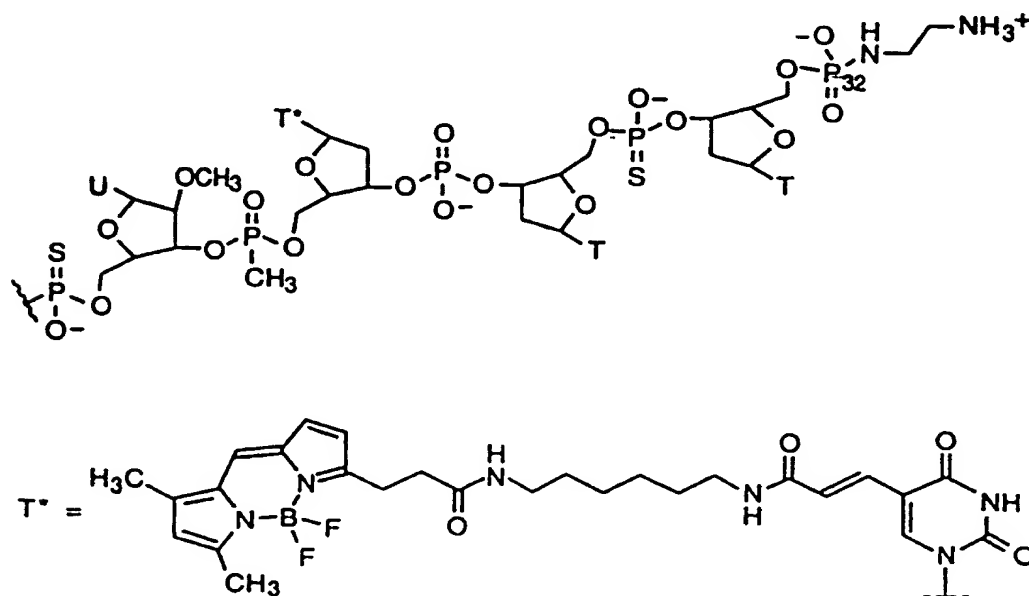
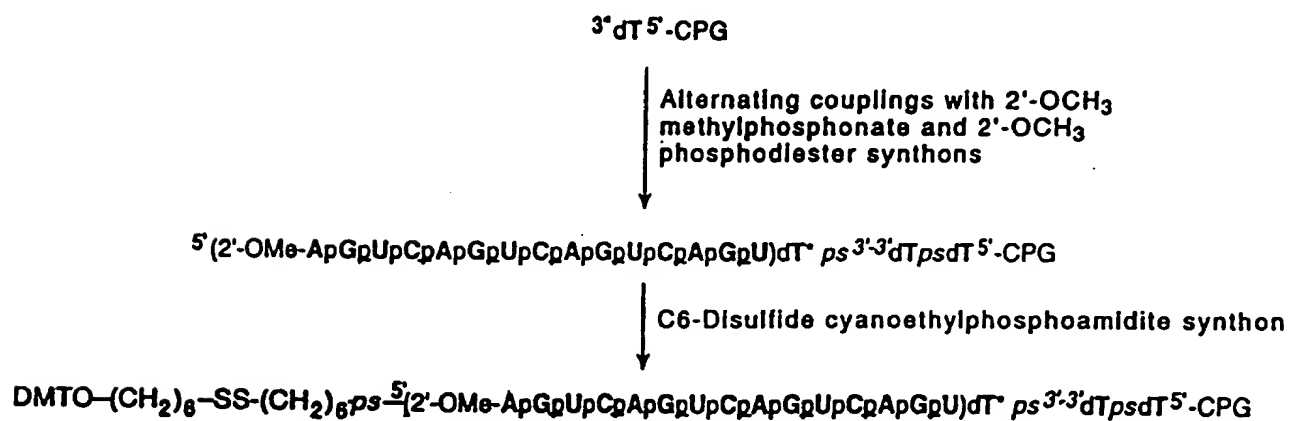


FIG. 2d



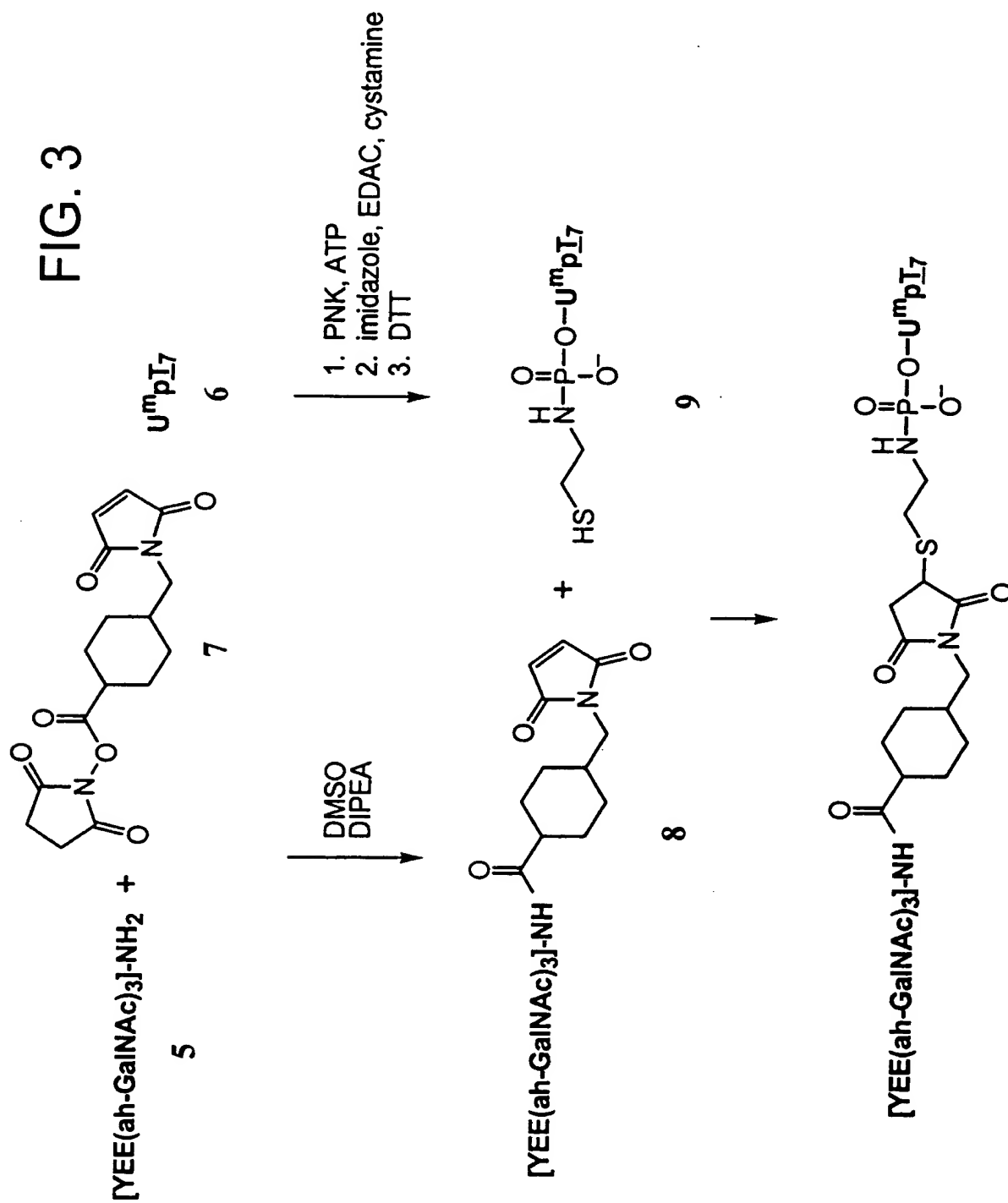


FIG. 4

1 2 3 4

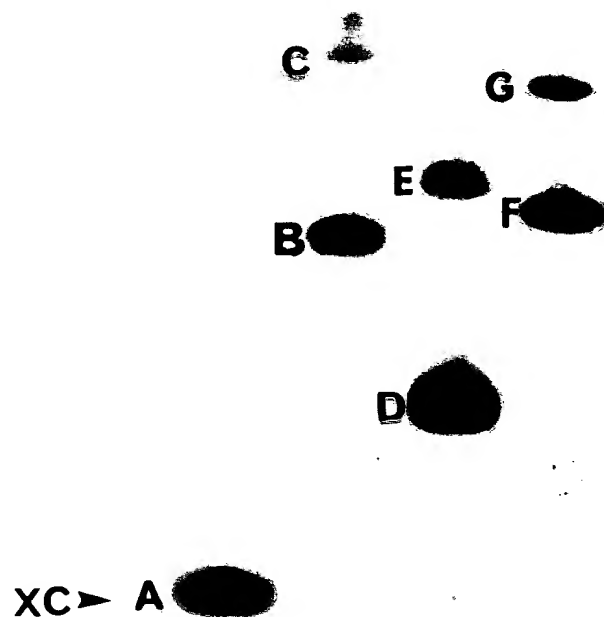
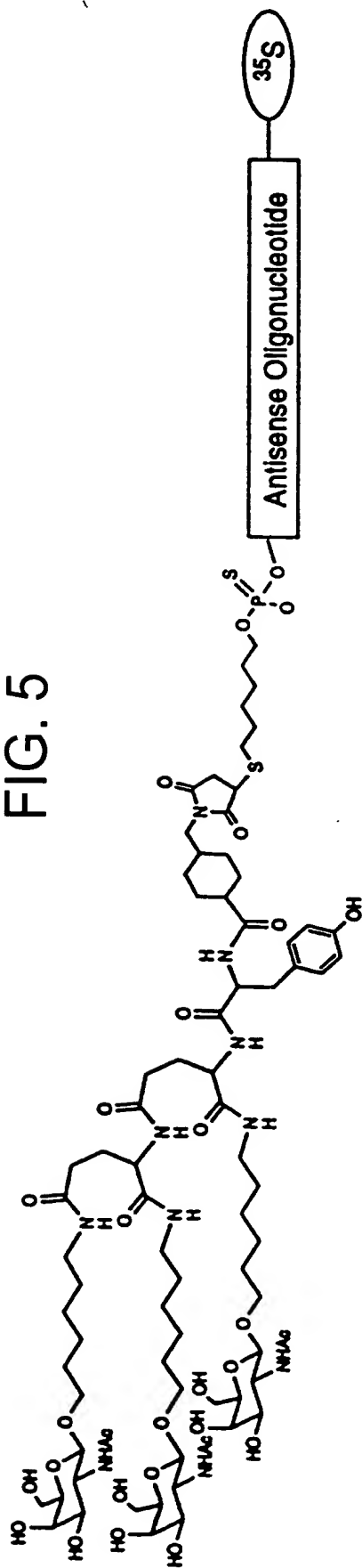


FIG. 5



Antisense Oligonucleotide

where is either

GTT CTC CAT GTT CAG

TTT ATA AGG GTC GAT GTC CAT

AAA GCC ACC CAA GGC A

TTGA GCT ATG CAC ATT CAG ATT T

NG1

NG2

NG3

NG4

Surface Antigen

Core

Encapsulation

Random

$\textcircled{^{35}\text{S}}$ where is $-\{[^{35}\text{S}] \cdot \text{ps} \cdot \text{A}\}_n$ $n = 1..3$

FIG. 6

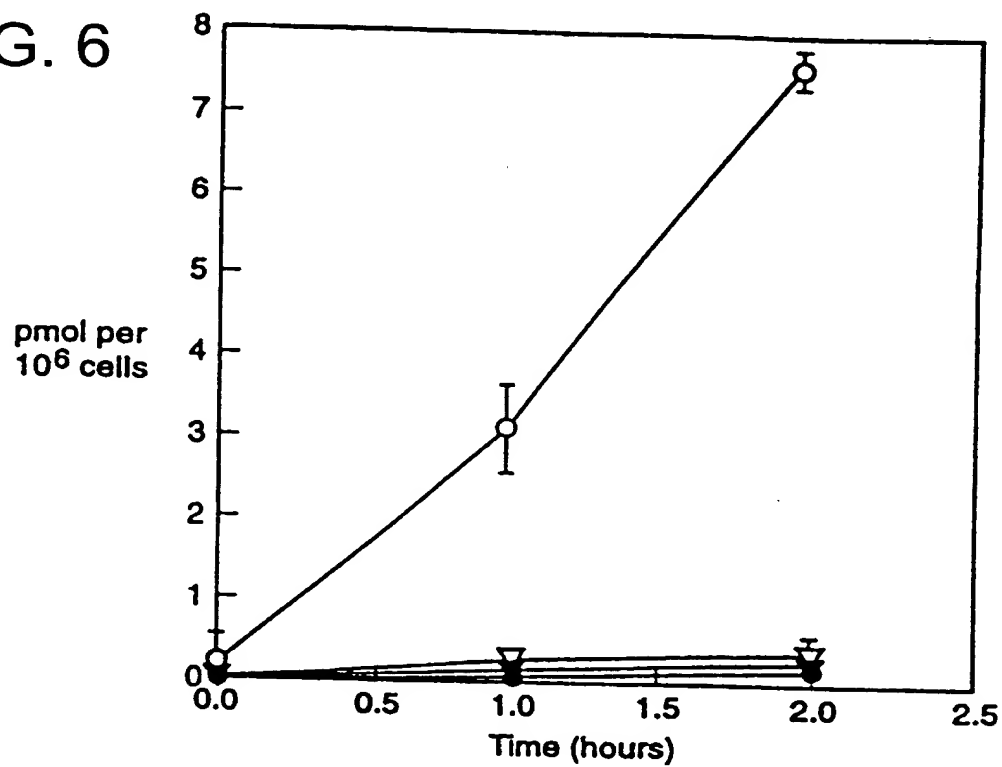


FIG. 7

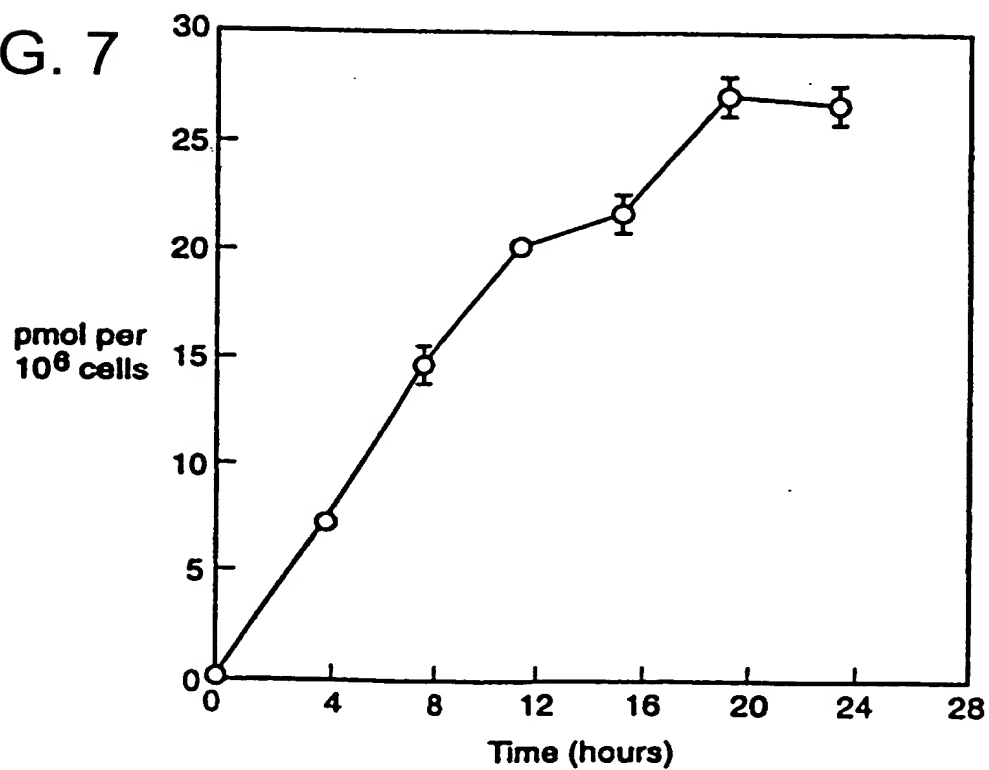
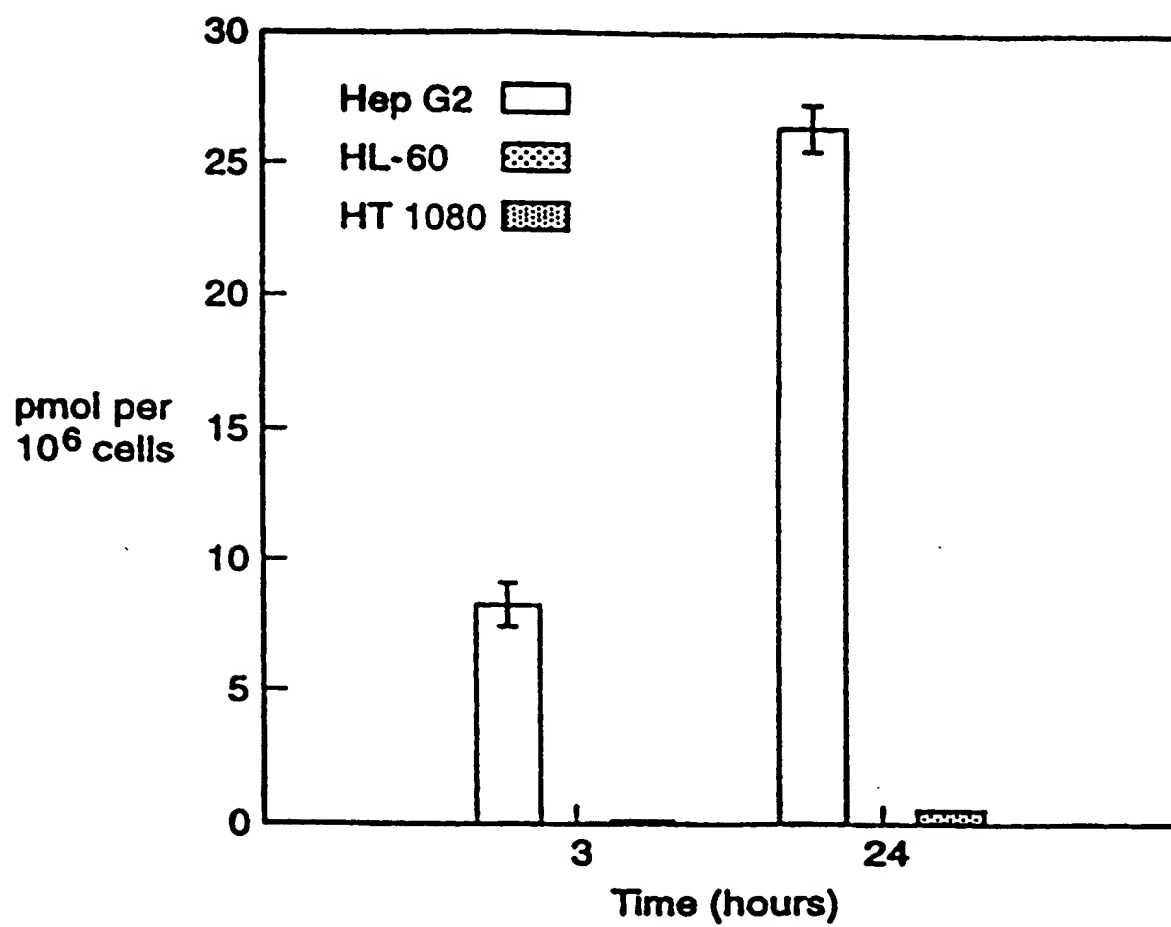


FIG. 8



NUCLEASE RESISTANT NEOGLYCOCONJUGATE UPTAKE BY HEP G2 CELLS

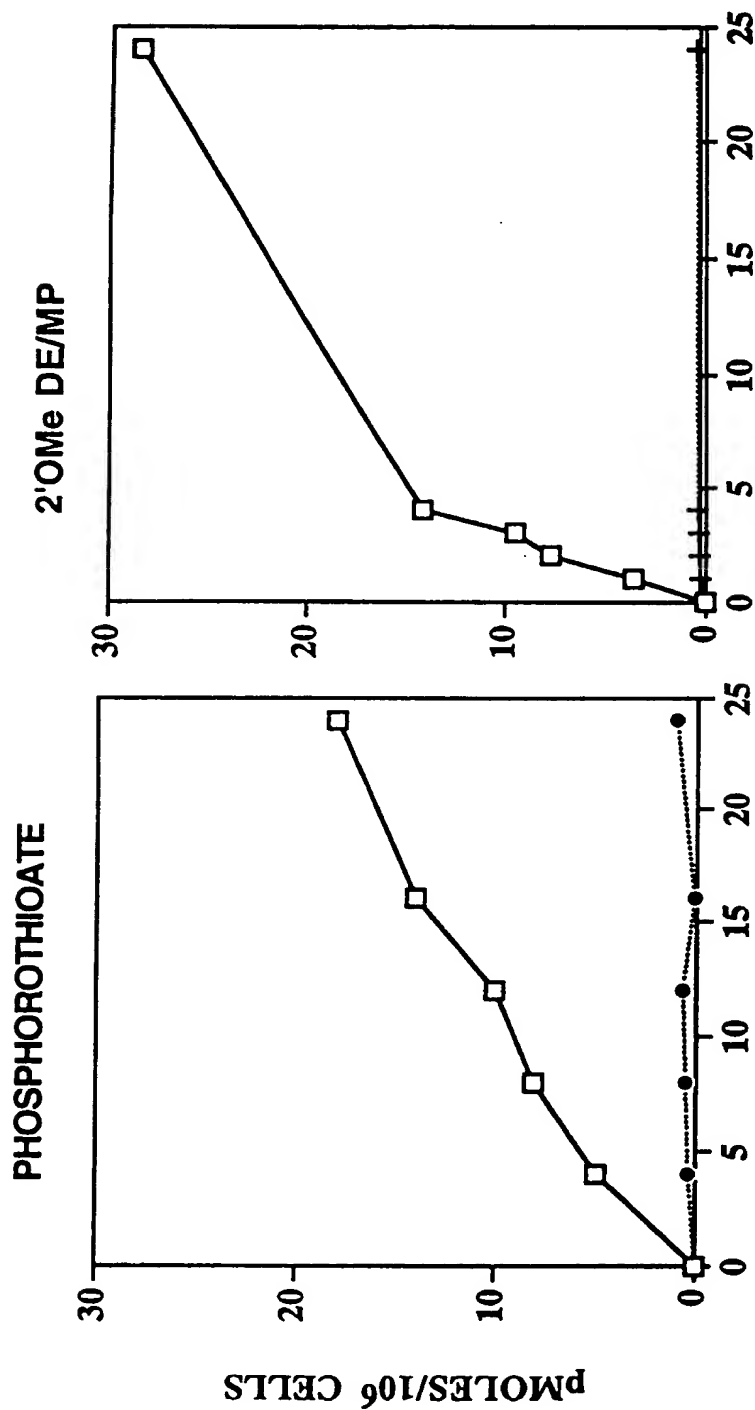


FIG. 9a

FIG. 9b

—□— NEOGLYCOCONJUGATE
.....+..... OLIGOMER

FIG. 10
NUCLEASE RESISTANT NEOGLYCONJUGATE UPTAKE
BY HEP G2 2.2.15 CELLS

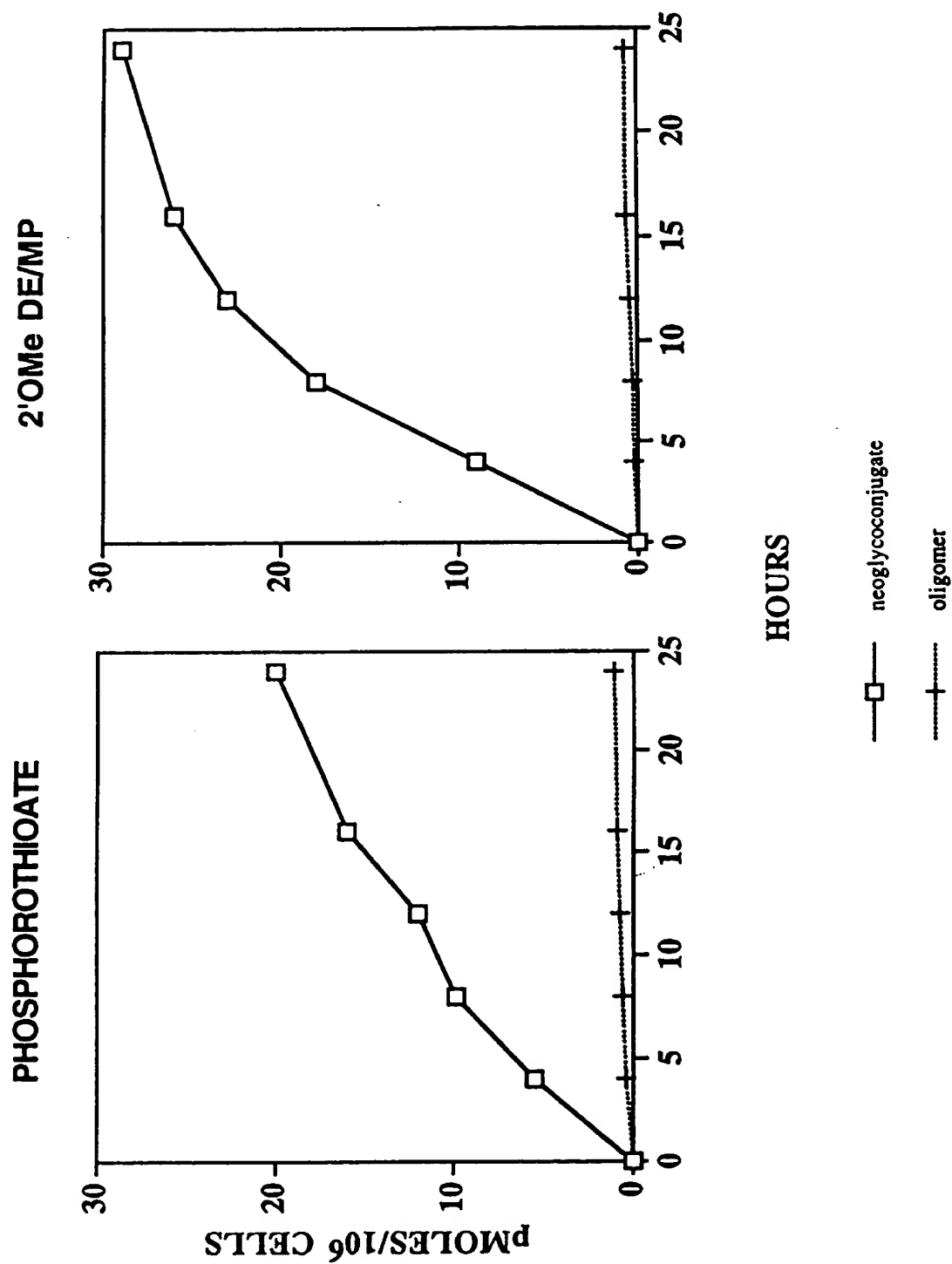


FIG. 11

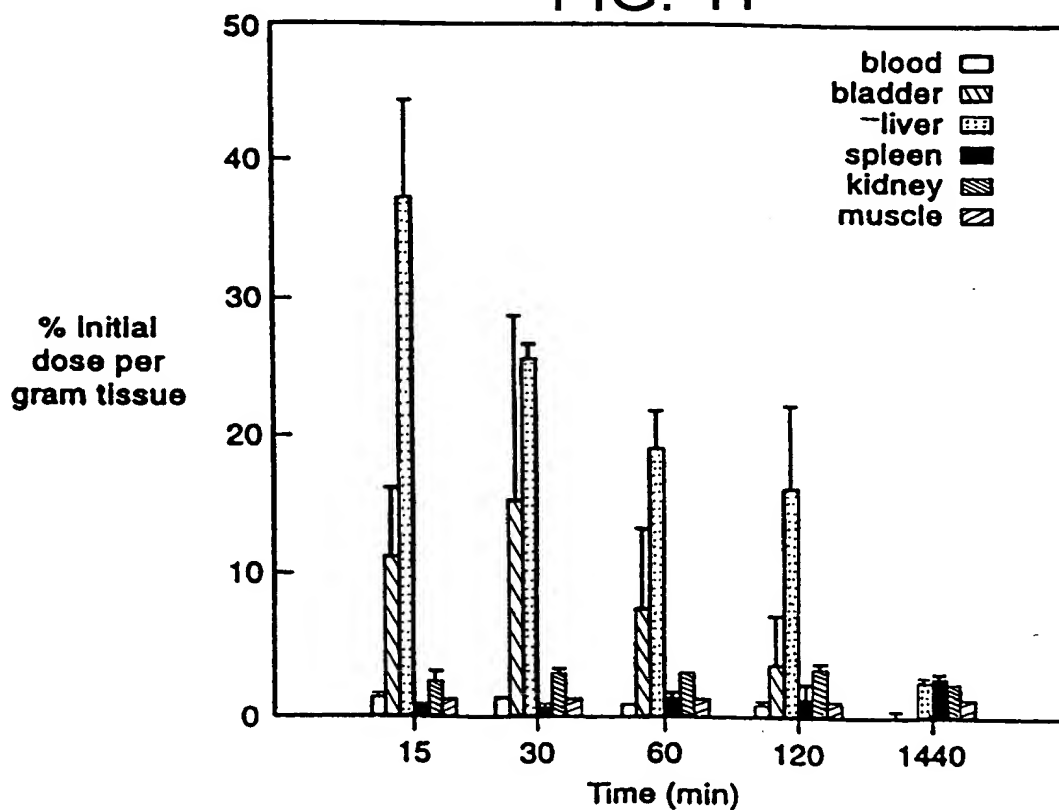
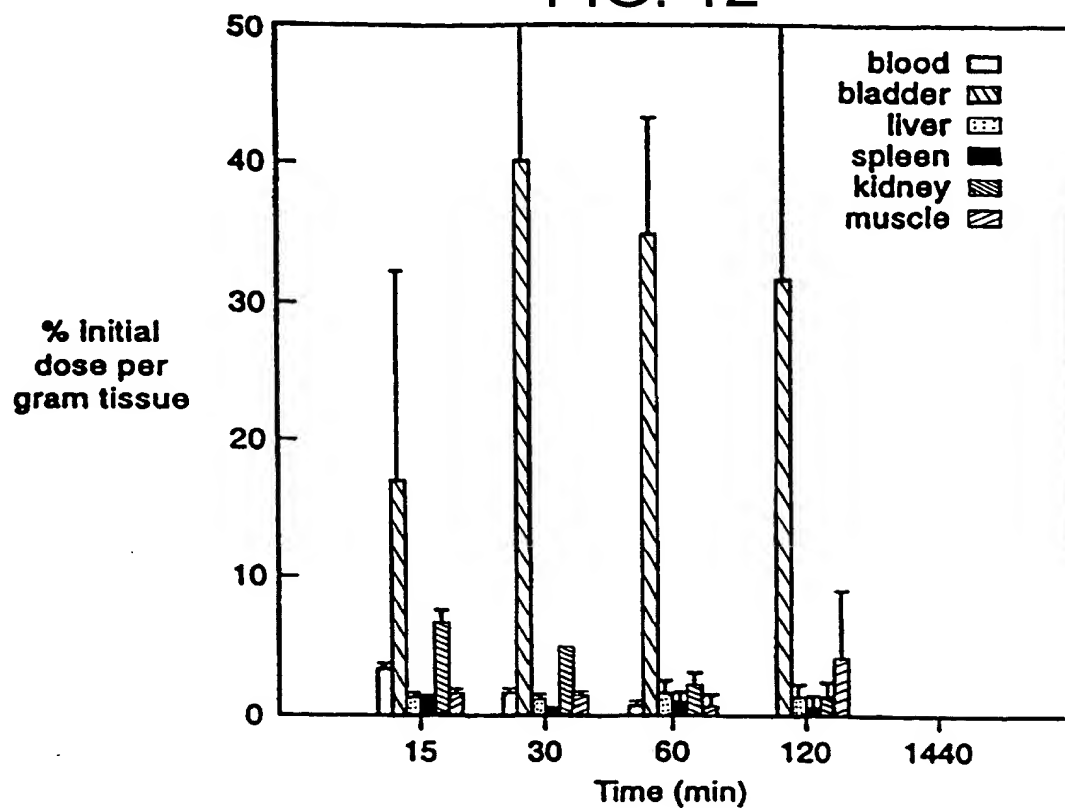


FIG. 12



Tissue Distribution in Mice of {S-35}-Labeled Antisense Phosphorothioate Oligomer Against HBV

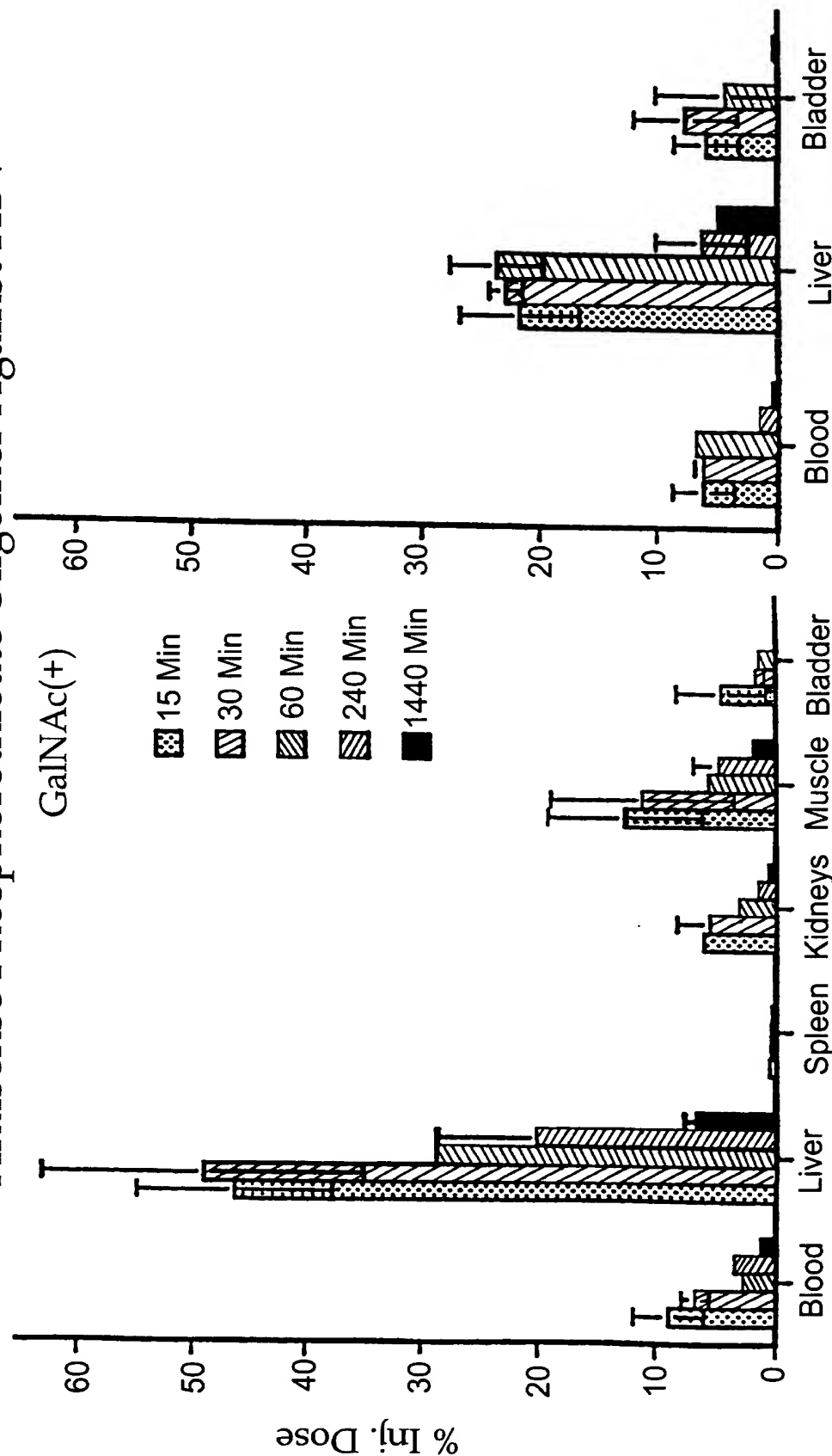
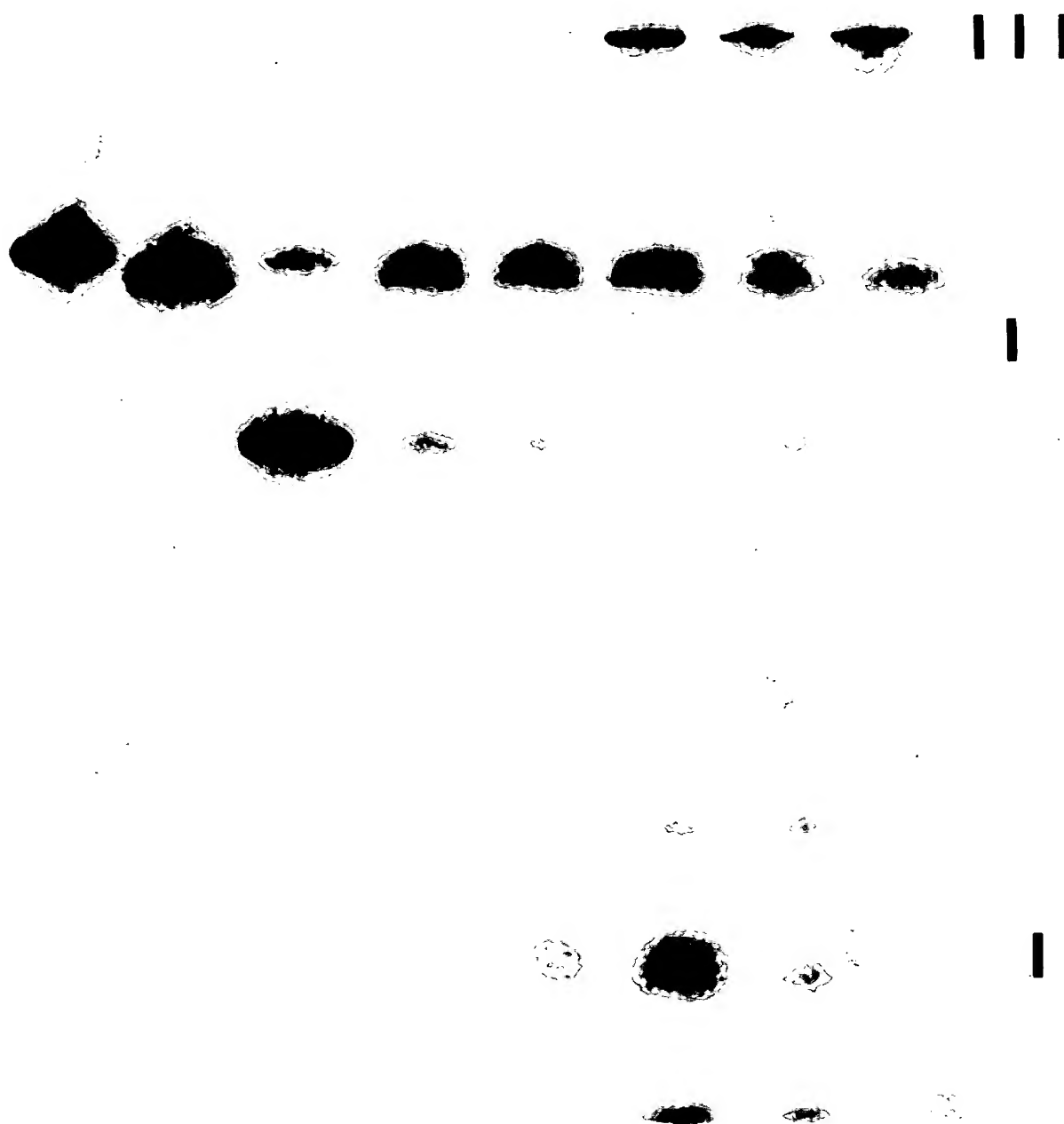


FIG. 13a

FIG. 13b

1 2 3 4 5 6 7 8



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FIG. 15

1 2 3 4 5 6 7 8 9

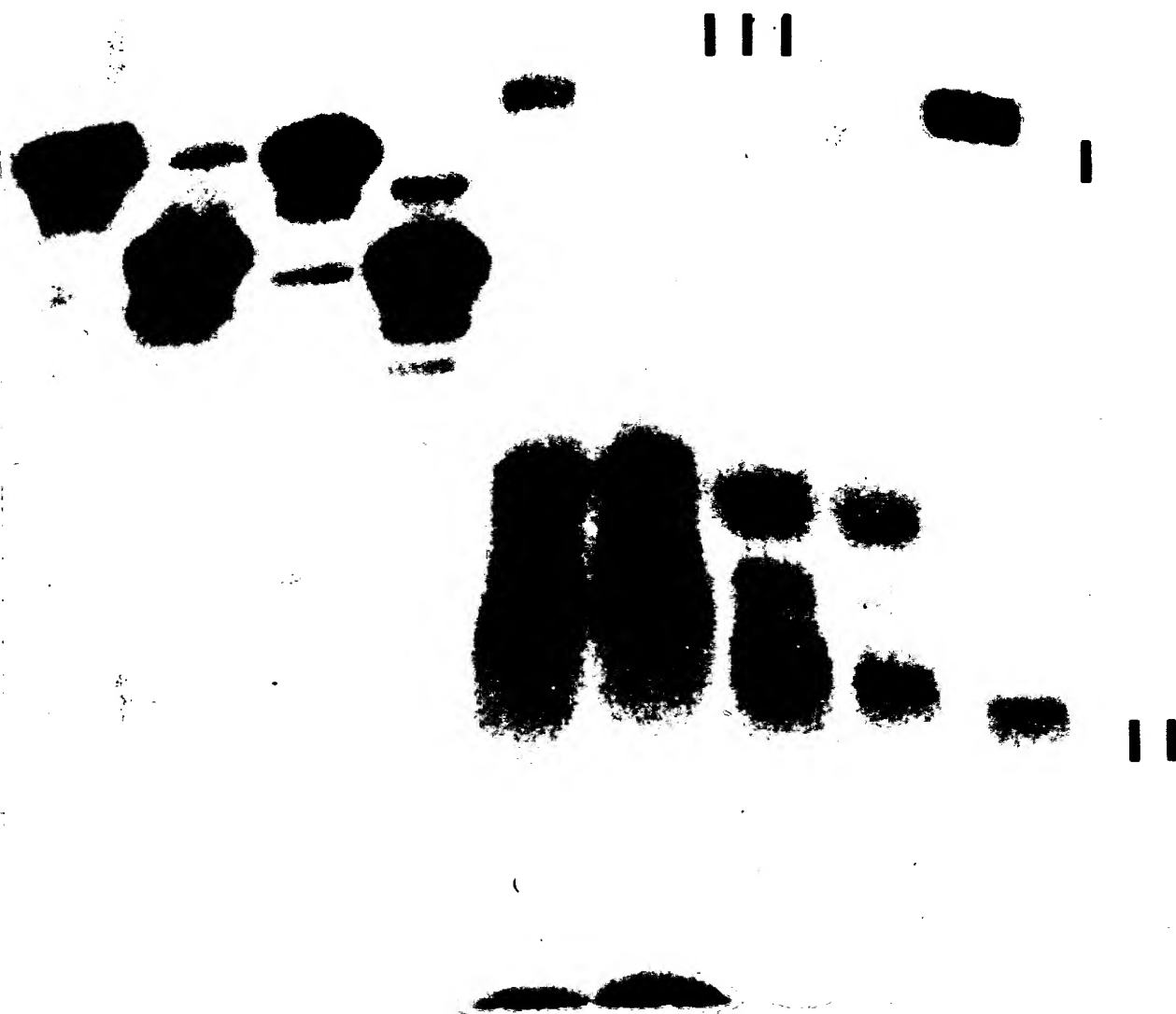
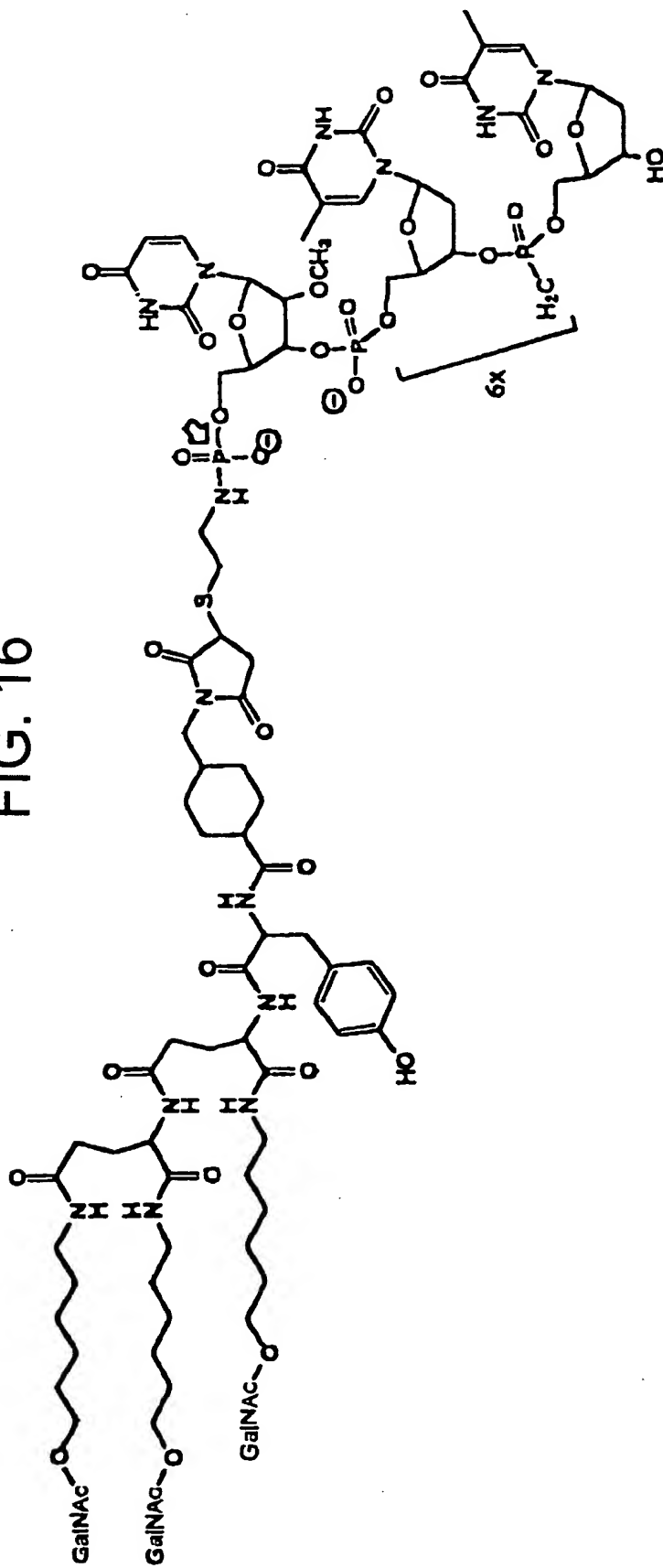


FIG. 16



10: YEE(ahGalNAc)₃-SMCC-AET-pU^mpL,

11: YEE(ah)₃-SMCC-AET-pU^mpL,

12: [Y]-SMCC-AET-pU^mpL,

13: pU^mpL,

14: YEE(ahGalNAc)₂-SMCC-AET-pU^mpL,

15: YEE(ahGalNAc)₃-SMCC-AET-pU^m

1 2 3 4 5 6 7 8

FIG. 17



FIG. 18

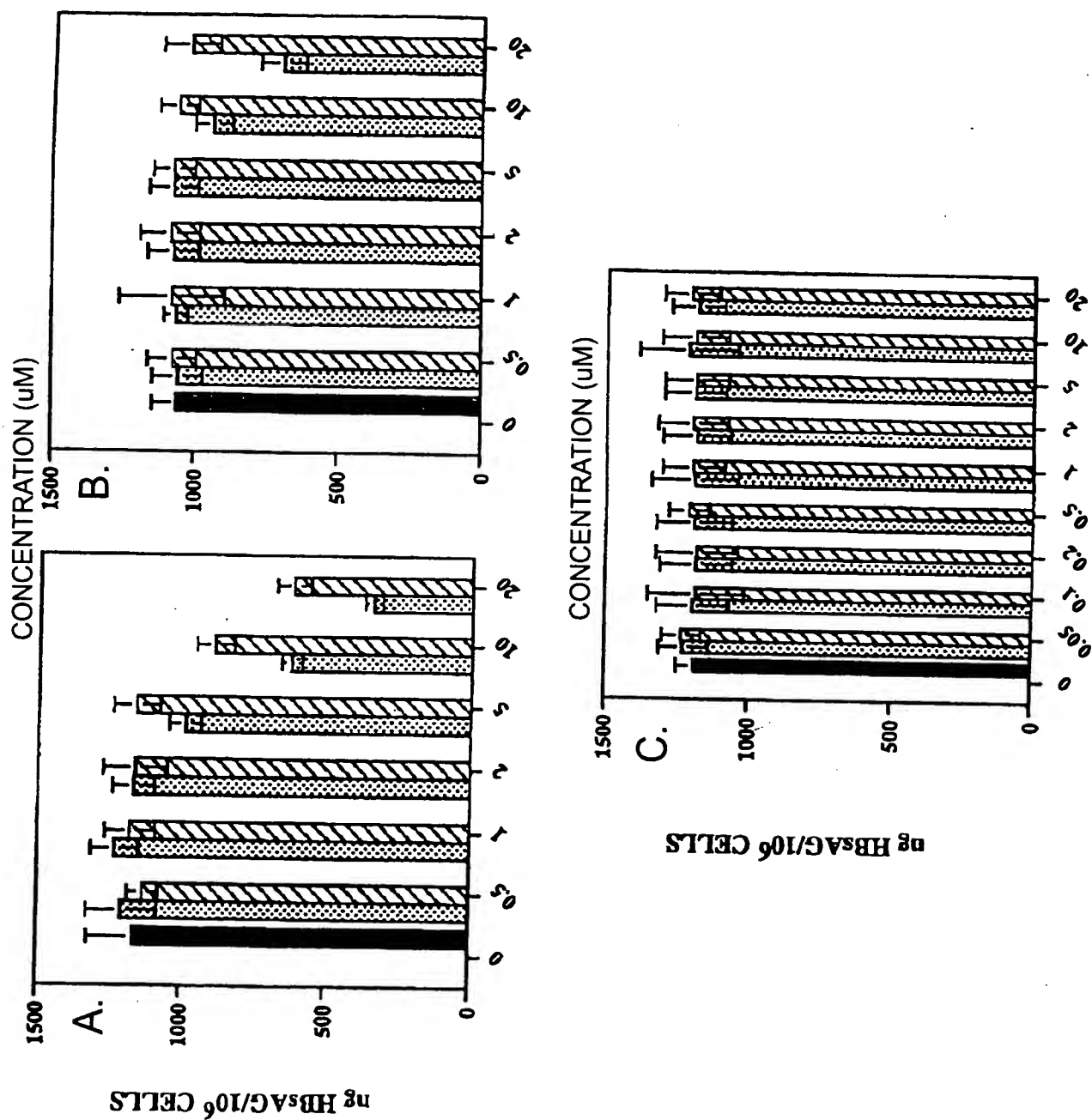


FIG. 19

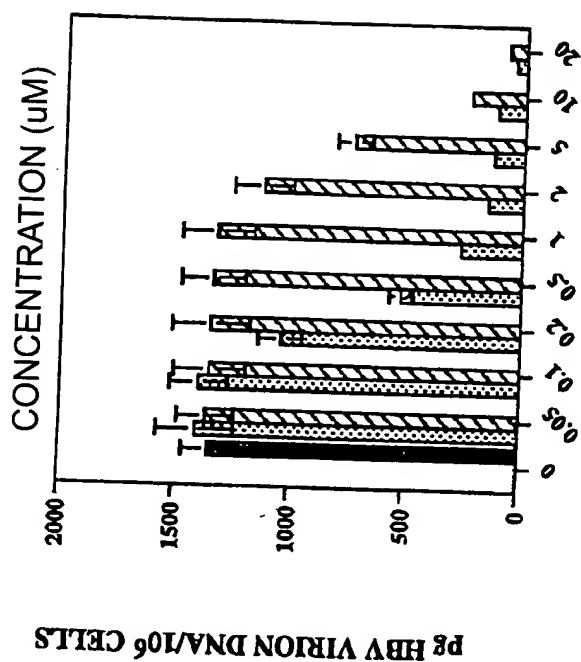
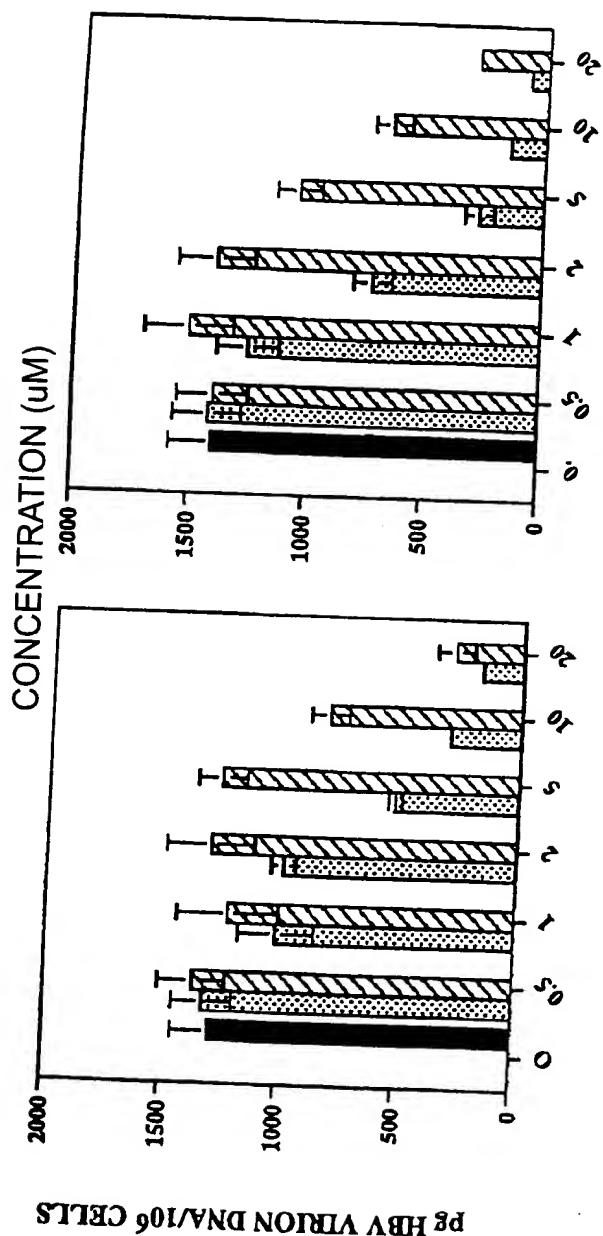


FIG. 20

